



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,216	05/01/2001	Kenzo Urabe	019949-006	2984

7590 09/22/2004  
Ronald L. Grudziecki  
BURNS, DOANE, SWECKER & MATHIS, L.L.P.  
P.O. Box 1404  
Alexandria, VA 22313-1404

EXAMINER

PERILLA, JASON M

ART UNIT	PAPER NUMBER
----------	--------------

2634

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/845,216

Applicant(s)

URABE ET AL.

Examiner

Jason M Perilla

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-15 are pending in the instant application.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

3. Figures 10 and 11 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

4. Claims 1-7 are objected to because of the following informalities:

Regarding claim 1, the language of the preamble including, "in predetermined unit by predetermined unit" should be amended to be written more clearly. It is suggested that the use of the term "unit" is more clearly determined in the claim.

Further regarding claim 1, the word "copsing" in line 6 should be replaced by -- wherein--, and the word "has" in line 8 should be replaced by --is comprising-- for

language consistency in the claim. If the suggestion is traversed by Applicant, an alternative appropriate change should be made.

Regarding claim 4, the word "comprising" in line 3 should be replaced by – wherein--, and the word "has" in line 5 should be replaced by –is comprising— for language consistency in the claim. The number of multiplication means should be more clearly defined to be according to the number of chips in one symbol period for clarity of the claim.

Further regarding claim 4, the recites the limitation "said code sequence of one symbol length" in line 19. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the claim includes the limitation of a control means to enable the use of a minimum number of multiplication means according to a period of time during the arrival of effective paths (lines 9-15):

control means for determining, which multiplication means actually perform multiplication among said plurality of multiplication means, a minimum number of multiplication means necessary for a period of time

during which there arrive path signals regarded **as being effective** among a plurality of path signals contained in said multi-path signal. However, the reception of an effective arrival path is indefinite and unclear to one skilled in the art. One skilled in the art may recognize a path as having a correlation value above a certain value applicable for demodulation, but is unable to distinguish the meaning of a path being effective from any other path. Further, one skilled in the art would be able to consider any path reaching a receiver as being effective because it is received.

Claims 2-3, 12, and 15 are rejected as being dependent upon parent claim 1.

Regarding claim 4, the claim is indefinite and unclear for the same reasons as addressed in claim 1 above with reference to the effective path signals of line 17 in the claim.

Claims 5-7, and 13 are rejected as being dependent upon parent claim 4.

Regarding claim 8, the claim is indefinite and unclear for the same reasons as addressed in claim 1 above with reference to the effective path signals of line 26 in the claim.

Claims 9-11, and 14 are rejected as being dependent upon parent claim 8.

### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art of record not relied upon above is cited to show the state of the art with respect to power saving matched filter receivers.

U.S. Pat. No. 6075807 to Warren et al.

U.S. Pat. No. 5953366 to Naruse et al.

U.S. Pat. No. 5999560 to Ono.

U.S. Pat. No. 6052405 to Nakano.

U.S. Pat. No. 6148044 to Ono.

U.S. Pat. No. 5910948 to Shou et al.

U.S. Pat. No. 5974038 to Shou et al.

U.S. Pat. No. 5818866 to Wilk.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (571) 272-3055. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason M. Perilla  
September 10, 2004

Application/Control Number: 09/845,216  
Art Unit: 2634

Page 6

jmp

  
**CHIEH M. FAN**  
**PRIMARY EXAMINER**